

AMENDMENTS TO THE CLAIMS

97. **(Currently Amended)** A method for decreasing neuronal cell death associated with a neuropathy, comprising contacting said neuronal cell with a morphogen comprising a dimeric protein ~~with, the dimeric protein having one or more of the following:~~
- (1) a conserved C-terminal ~~seven-six~~-cysteine skeleton 60% identical to residues ~~38~~ 43-139 of SEQ ID NO: 5;
- (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
- (3) ~~a conserved C-terminal six-cysteine skeleton 70% homologous to residues 43-139 of SEQ ID NO: 5; or~~
- (3)(4) an amino acid sequence of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vg1, Vgr-1, BMP3, BMP5, or BMP6;
- (4) ~~a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,~~
- (5) ~~a sequence defined by OPX, SEQ ID NO: 29;~~
- wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.
99. **(Currently Amended)** A method for decreasing neuronal cell death associated with a chemical or physical injury, comprising contacting said neuronal cell with a morphogen comprising a dimeric protein with:
- (1) a conserved C-terminal ~~seven-six~~-cysteine skeleton 60% identical to residues ~~38~~ 43-139 of SEQ ID NO: 5;
- (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
- (3) ~~a conserved C-terminal six-cysteine skeleton 70% homologous to residues 43-139 of SEQ ID NO: 5; or~~
- (3)(4) an amino acid sequence of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vg1, Vgr-1, BMP3, BMP5, or BMP6;
- (4) ~~a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,~~
- (5) ~~a sequence defined by OPX, SEQ ID NO: 29;~~

wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.

105. **(Previously presented)** The method of claim 97 or 99, wherein the morphogen is human OP-1.
106. **(Previously presented)** The method of claim 97 or 99, wherein the morphogen is mouse OP-1.
107. **(Previously presented)** The method of claim 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, BMP2A, BMP2B, Vg1, Vgr-1, BMP5, or BMP6.
108. **(Previously presented)** The method of claim 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, BMP5, or BMP6.
109. **(New)** The method of claim 97 or 99, wherein the morphogen is a dimeric protein having a conserved C-terminal six-cysteine skeleton 60% identical to residues 43-139 of SEQ ID NO: 5.
110. **(New)** The method of claim 97 or 99, wherein the morphogen is a dimeric protein having a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5.
111. **(New)** The method of claim 97 or 99, wherein the morphogen is a dimeric protein having a conserved C-terminal six-cysteine skeleton 70% homologous to residues 43-139 of SEQ ID NO: 5.